The Parallax of B. D. +36° 3956

A former note (December, 1916) contains parallaxes of two of the three Wolf-Rayet stars for which Kapteyn and Donner have given values in the *Publications of the Astronomical Laboratory at Gröningen*, No. 1. For the third, B. D. +36° 3956, the result now derived from 20 exposures is:

$$\pi_{rel.} = -0.''005 \pm 0.''006$$

If we suppose that these three stars, which are close together in the sky, have the same parallax, the Mount Wilson results give a mean absolute parallax of +0."0047; the absolute magnitudes of the stars would accordingly be +1.9, +1.4, and +1.4, or, in the mean, +1.6. If on the other hand we assume the stars to have the same absolute magnitude, we can derive the value +1.2 by means of a formula which is due to Mr. Strömberg.

For only ten other O-type stars are directly determined parallaxes by other observers available; the mean absolute parallax is −0".007 and the mean apparent magnitude 6.55; these results also point to very high luminosities. From parallactic motions Gyllenberg derives an absolute magnitude of −1.2 for the O-type stars, and Hertzsprung obtains −2.8. From stream-motions Kapteyn has derived the absolute magnitudes of ten stars of this type: their mean value is −1.1.

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Absorption Lines in the Spectrum of Nova Aquilae, No. 3

This note contains the results of measures of the wide absorption lines or bands found in the spectrum of *Nova Aquilae* on a plate taken June 11, 1918, with the Mills three-prism spectrograph. Fifty-eight of these lines were measured by Dr. G. F. Paddock in the region including Hγ and Hβ. Wave-lengths in the International System were computed by a Hartmann formula. Finding that some of these wave-lengths agreed with titanium lines, under the supposition of a displacement of twenty or more angstrom units, in accordance with the shift announced by Adams and Joy,[1] a search for identification was undertaken. As many of the computed values agree with Lockyer's enhanced lines,[2] all of his tables of enhancing elements were compared with the Nova wave-lengths. Numerous identifications were found as follows:

[1] *H. C. O. Bull.* No. 663.
[2] *Tables of Wave-lengths of Enhanced Lines*, Solar Physics Committee, 1906.